

CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously presented) A scroll wall arrangement for a scroll compressor, comprising

a fixed scroll wall and an orbiting scroll wall, which together define a plurality of flow paths having respective inlets for simultaneous pumping at different pressures,

wherein the plurality of flow paths comprise a first flow path extending from a first inlet to an outlet and a second flow path extending from a second inlet to the outlet, and wherein the second inlet is isolated from the first flow path, and

wherein the first and second flow paths converge to form a merged flow path.

2. (Withdrawn) The arrangement according to Claim 1 wherein the second inlet is isolated from the first flow path by a portion of the second flow path.

3. (Previously presented) The arrangement according to Claim 1 wherein the second inlet is isolated from the first flow path by at least one wrap of the arrangement.

4. (Previously presented) The arrangement as claimed in Claim 1 wherein the pressure at the second inlet during pumping is higher than the pressure at the first inlet.

5. (Previously presented) A scroll compressor comprising:

a scroll wall arrangement comprising:

a fixed scroll wall and an orbiting scroll wall arranged to form a first flow path and a second flow path, each flow path having an inlet for pumping a gas at different pressures,

wherein the inlet of the first flow path and the inlet of the second flow path extend to an outlet and wherein the inlet of the second flow path is isolated from the first flow path,

and wherein the first and second flow paths converge to form a merged flow path.

6. (Withdrawn) The scroll compressor of Claim 5 further comprising a second scroll wall arrangement.

7. (Withdrawn) The scroll compressor according to Claim 6; wherein the fixed scroll walls of the scroll wall arrangements are formed as part of a fixed scroll common to both arrangements.

8. (Previously presented) A differentially pumped system comprising:
a first chamber and a second chamber having a respective interconnection therebetween;
a turbomolecular pump having an inlet connected to the second chamber for pumping at relatively low pressures; and

a scroll compressor comprising a fixed scroll wall and an orbiting scroll wall arranged to form a first flow path and a second flow path, each flow path having an inlet for pumping a gas at different pressures, wherein the inlet of the first flow path and the inlet of the second flow path extend to an outlet and the inlet of the second flow path is isolated from the first flow path and wherein the first and second flow paths converge to form a merged flow path, and

wherein one inlet of the scroll compressor is connected to the first chamber for pumping at relatively high pressures and another inlet of the scroll compressor is connected to the exhaust of the turbomolecular pump for backing the same.

9. (Withdrawn) The system according to Claim 8 wherein the inlet of the second flow path is connected to the second chamber for pumping at relatively high pressures and the inlet of the first flow path is connected to the exhaust of the turbomolecular pump for backing the same.

10. (Withdrawn) The system according to Claim 8 wherein the inlet of the first flow path is connected to the second chamber for pumping at relatively high pressures and the inlet of the second flow path is connected to the exhaust of the turbomolecular pump for backing the same.

11. (Withdrawn) The system according to Claim 8 wherein the turbomolecular pump is a split flow pump and comprises an inter-stage inlet connected to the first chamber for pumping the same.

12. (Withdrawn) The system according to Claim 8 wherein the inlet of the first flow path is connected to the first chamber and the exhaust of the turbomolecular pump.

13. (previously presented) A scroll wall arrangement for a scroll compressor comprising:

a fixed scroll wall and an orbiting scroll wall, which together define a plurality of flow paths having respective inlets for simultaneous pumping at different pressures,

wherein the plurality of flow paths comprise a first flow path extending from a first inlet to an outlet and a second flow path extending from a second inlet to the outlet and wherein the second inlet is isolated from the first flow path by one revolution of the fixed scroll wall and the second flow path extends from the second inlet through 360° where it merges with the first flow path.

14. (previously presented) The arrangement as claimed in Claim 1 wherein the pressure at the second inlet during pumping is lower than the pressure at the first inlet.